

REMARKS/ARGUMENTS

Claims 1, 3-5, 9-11, 13, 15-17, 19-21, 27, 39 and 41-44 are pending in this application, based on the recitation in the Office Action dated February 27, 2007. Claims 41-43 have been allowed, while the remaining claims are rejected.

The undersigned would like to take care of some “housekeeping duties” initially. First, as mentioned in the previous Office Action, claim 8 depends from allowed claim 41. Therefore, the claim should be designated as allowable. If there is any question regarding this assertion, a brief discussion might be helpful.

Moreover, the Office Action indicates that claim 27 is pending and rejected. Applicant wishes to clarify that claim 27, like most or all of the method claims, had been made subject to a Restriction Requirement, and had been previously cancelled. On yet another note, claim 37 is not referenced in the Office Action, and should be designated as still pending. Clarification on these matters would be helpful.

Applicant has reviewed the Examiner’s comments on page 2 of the Office Action, in regard to the Examiner’s e-mail correspondence with an individual at Benjamin Moore Company. (Again, the undersigned compliments the Examiner on his diligence in pursuing information which might be related to patentability). However, Applicant is in agreement with the Examiner’s decision to not pursue that theory of claim-rejection at this time, in view of evidential and corroborative issues. This is not to say that Applicant has wavered from the position that all of the references – including any theoretical documentation of information the Examiner was pursuing from Benjamin Moore – fail to disclose or suggest organic aluminizing compositions which include both aluminum flakes and aluminum particles.

Claims 1, 3-5, 9-11, 13, 15-17, 19-21, 37, 39 and 44 stand rejected under 35 U.S.C. 103(a), as being unpatentable over Moravek et al, U.S. Patent 6,805,906 (“Moravek”), in view of Reinhardt et al, U.S. Patent 6,153,054

(“Reinhardt”) and Vogt, U.S. Patent 5,441,564. Applicant has reviewed this new theory of rejection. Moreover, the Moravek reference has been discussed in considerable detail during previous prosecution.

It appears that Reinhardt and Vogt are being introduced, in part, to show that aluminum-containing coatings can be prepared using flakes obtained from milling aluminum powder (see first full paragraph on page 4 of the Office Action). The Examiner then appears to conclude (if Applicant understands correctly) that the compositions probably contain both aluminum powder and aluminum flake (bottom of page 4 of the Office Action). Applicant respectfully disagrees on these points.

Reinhardt describes pigment coatings for raw release papers. The coatings contain aluminum hydroxides, in lamellar form (column 3, lines 5-24). The properties of the aluminum hydroxide materials were studied, as indicated in column 4, beginning on line 56. As noted by the Examiner, Example 2 mentions that coatings which include aluminum hydroxide materials appear to exhibit a lower luster value than coatings which contain clay. The Examiner appears to conclude from that point that the aluminum hydroxide pigment “...was not sufficiently flake-like to have the desirable level of luster”. (See page 4 of the Office Action, second full paragraph). The overall conclusion, then, appears to be that one would use both aluminum flake and aluminum powder in a coating. (See paragraph ending at the top of page 5 of the Office Action).

While Applicant understands the concluding point that the Examiner is making, this reference does not appear to provide a sufficient basis for that conclusion. Reinhardt is directed very specifically to coatings for release papers, e.g., coatings related to the printing industry. This area has nothing to do with the present invention. In Reinhardt, the pigments and other ingredients in the coatings relate to a variety of visible and cosmetic qualities on the paper surface, e.g., luster and “smoothability” (see col. 1, lines 21-28; lines 46-48). The technology is in no way related to aluminizing compositions which are intended to deliver aluminum into a region of a metal substrate, as in the present invention. In an obviousness analysis, the distinction between objectives and fields-of-use for the

cited art and the invention under examination are critical. It would be a fair statement to say that no one skilled in the art of aluminizing processes for turbine components would look to the printing paper industry to solve problems associated high-temperature aluminum depletion from gas turbine engines.

Moreover, the undersigned is still unclear as to how the disclosure in Reinhardt – even if somehow viewed as part of gas turbine technology – suggests the presence of both aluminum powder and aluminum flakes in the composition. The reference does not appear to invite the two forms of aluminum together, and also does not appear to suggest one over the other. (Moreover, the theory assumes that lamellar aluminum is in fact “flake” aluminum, and that is not entirely certain to the undersigned). The primary motivation for using different forms of aluminum or other pigments in Reinhardt appears to involve “luster” or some other cosmetic feature, and combining pigment flakes with pigment particles does not appear to factor into those desired features. Applicant thus maintains that Reinhardt cannot be combined with Moravek to reject the pending claims.

Vogt describes pigment mixtures which contain at least one platelet-shaped interference pigment (base materials coated with metal oxide), and at least one platelet-shaped color pigment. (See, for example, column 2, lines 18-26). The pigments are used for specialized coating systems which exhibit “flop effects”, e.g., changing their appearance according to angles at which they are viewed. The Examiner (page 4 of the Office Action) indicates that Vogt may be equating “platelets” with flakes, as described in the Background of the reference.

As in the case of Reinhardt, the materiality of Vogt is questioned in this instance. The patent is clearly related to pigment systems which enhance the luster or gloss of a coating (e.g., see col. 2, lines 7-12). Vogt is in no way related to aluminizing compositions which are intended to deliver aluminum into a region of a metal substrate, as in the present invention. Applicant thus maintains that Vogt does not supply inventive components which are missing from the Moravek

reference, e.g., the presence of a combination of aluminum flakes and an aluminum powder. (Moreover, Applicant continues to respectfully take issue with the Examiner's attempt to equate aluminum flakes with aluminum powders, e.g., as stated at the bottom of page 4 of the Office Action. It does not appear that the former is a species of the latter).

Applicant thus submits that the pending claims should be considered as patentable over the cited references. However, to reduce the number of active issues to an even greater extent, an additional limitation has been incorporated into claim 1. Thus, the claim now covers a composition which is substantially free of hexavalent chromium. The added language originates in the specification and with cancelled claim 16, and raises no new issues. This point had been discussed with the Examiner previously. Applicant emphasizes that the feature is especially significant in regard to the obviousness rejection, because it relates to the very motivation which prompted the discoveries outlined in the patent application. Nothing in the cited references describes the problems of having hexavalent chromium present in the aluminizing compositions. Moreover, nothing in the references describes the problems of taking out the hexavalent chromium. Applicant outlined those problems (e.g., in the examples; and in paragraphs 6-9 of the main body of the specification), and discovered a way to solve them.

New claim 45 is also included. The claim recites the presence of a nickel-based superalloy for the component of claim 43, i.e., a turbine engine substrate. No new matter has been added, and the claim depends from an allowed claim.

In conclusion, Applicant again submits that there is additional subject matter which is allowable in this Patent Application. After reviewing this Response, it may again be helpful for the undersigned and the Examiner to discuss a resolution of the remaining issues.

Please charge all applicable fees associated with the submittal of this Response and any other fees applicable to this application to the Assignee's Deposit Account No. 07-0868.

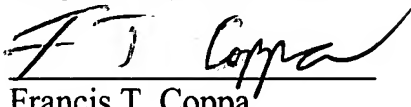
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Response dated 29 May 2007

Reply to Office Action of February 27, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "F T Coppa", written over a horizontal line.

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